



East Sabine Lake Hydrologic Restoration (CS-32)

Project Status

Approved Date: 2001 **Project Area:** 36,620 acres

Approved Funds: \$1.8 M **Total Est. Cost:** \$19.4 M

Net Benefit After 20 Years: 393 acres

Status: Engineering and Design

Project Type: Hydrologic Restoration

Location

The project is located in the western portion of the Sabine National Wildlife Refuge from Pool 3 to the eastern shoreline of Sabine Lake in Cameron Parish, Louisiana.

Problems

The lower salinity marshes are converting to shallow, open water due to elevated salinity events and subsidence. Navigation channels provide a direct route for salt water to infiltrate the marsh and also allow rapid runoff of fresh water. The larger Sabine-Neches Waterway and the Gulf Intracoastal Waterway (GIWW) have allowed saltwater intrusion into the project area's fresh and intermediate marshes. Navigation channels have disrupted the natural water circulation within the project area. Elevated tidal fluctuations in these channels have led to increased water flow, which has increased the conversion of marsh to open water. Area marsh loss is also caused by wave action along Sabine Lake and interior marsh shorelines and other natural causes (i.e., subsidence).

Restoration Strategy

The project has been separated into construction units 1 and 2. Construction Unit 1 will include: installing a rock weir in Pines Ridge Bayou; installing culverts with stop logs or sluice gates at Bridge Bayou; installing rock rip-rap along the Sabine Lake shoreline at Willow Bayou; installing a plug at the opening near the southeast portion of the Starks South Canal Section 16 levee; planting smooth cordgrass (*Spartina alterniflora*) along Sabine Lake's eastern shore from north of Johnson Bayou to north of Pines Ridge; and installing vegetated earthen terraces in the vicinity of Greens Lake. Construction Unit 2 will include installing adjustable control structures with boat bays in the Right Prong Black, Greens, Three, and Willow bayous.



Western end of Willow Bayou in the western portion of the East Sabine Lake Hydrologic Restoration project area showing the critical area only 25 feet from eroding into Sabine Lake. A 3,000 linear foot rock foreshore dike and marsh restoration are planned to protect this area.

Progress to Date

Engineering, design, and feasibility work began with the implementation orientation interagency meeting held on February 14, 2001. Modeling efforts began in April 2001. Construction is expected to begin on Construction Unit 1 by summer 2004.

This project is on Priority Project List 10.

For more project information, please contact:



Federal Sponsor:
U.S. Fish and Wildlife Service
Lafayette, LA
(337) 291-3100



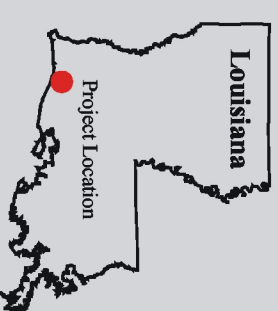
Federal Sponsor:
Natural Resources Conservation Service
Alexandria, LA
(318) 473-7756



Local Sponsor:
Louisiana Department of Natural Resources
Baton Rouge, LA
(225) 342-7308

Flaggated Culvert *
Rock Weir *
Water Control Structure *
Plantings *
Terraces *
Rock Dike *
Project Boundary

* denotes proposed features



Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
1998 Digital Orthophoto Quarter Quadrangle

Map Date: August 19, 2003
Map ID: USGS-NWRC 2003-11-114
Data accurate as of: January 14, 2003